

RUKAVISHNIKOV, S.V., kand.tekhn.nauk; SHURTYGIN, K.I., kand.tekhn.nauk;  
FEDIN, I.V., inzh.

Interchangeable working parts for the FTK-GPI-38 cutting trench  
digger. Stroi. i dor. mash. 8 no.2411-12 F '63. (MIRA 16:3)  
(Excavating machinery)

NIKOLAYEV, A.F., kand.tekhn.nauk; FEDIN, I.V., inzh.; POL', L.R., inzh.

New machinery for working frozen soils. Strof. i dor.wash. ?  
no.10:1-2 0 '64. (MIRA 18:1)

FEDIN, K.A.; BAYEVSKIY, D.A., doktor istor.nauk; VOLKOV, N.S., doktor istor.nauk; GENKINA, E.B., doktor istor.nauk; KUCHKIN, A.P., doktor istor.nauk; KOSTOMAROV, G.D., prof.; DADYKIN, R.P., kand. istor.nauk; ROGACHEVSKAYA, L.S., kand.istor.nauk; SHABALIN, B.I., kand.istor.nauk; MAMONTOV, I.S.; PIROGOV, V.K., преподаvatel'

Let's write the history of our plants and factories; a letter to the editors. Sov.profsoluzy 16 no.7:62-63 Ap '60.

(MIRA 13:4)

1. Sekretar' Soyuz pisateley SSSR (for Fedin). 2. Glavnyy redaktor izd-va "Moskovskiy rabochiy" (for Mamontov).  
(Factories)

24(4)

SOV/51-6-5-26/34

AUTHORS: Zakhar'yevskiy, A.N. and Fedin, L.A.

TITLE: Measurement of Double Refraction of Fibres (Izmereniye dvoynogo lucheprelomleniya volokon)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 701-703 (USSR)

ABSTRACT: A polarization microscope suitable for measurement of double refraction in fibres is shown in Fig 1. A fibre F is placed in a suitable immersion medium between an objective Ob and a condenser K. The other parts of the microscope are: a polarizer P, an analyser A, an ocular Oc and a Wollaston prism W (placed in the image plane). For 0.01-0.02 mm thick fibres the magnification is 500 X. The system produces linear interference bands at right-angles to the fibre. A fibre displaces the bands by an amount  $\Delta N$  which is related to double refraction, defined as the difference between the refractive indices of polarized rays ( $n_H - n_L$ ), by the following expression

$$\Delta N = \frac{a(n_H - n_L)}{\lambda} \quad (1)$$

where  $a$  is the thickness of the fibre and  $\lambda$  is the wavelength of the light used. Fig 2 shows a microphotograph taken in green light

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Measurement of Double Refraction of Fibres

SOV/51-6-5-26/34

(546 mμ). The five fibres shown in Fig 2 are: (1) caprone, (2) "lavan", (3) nitron, (4) cuprammonium rayon, (5) viscose rayon. The strongest double refraction occurs in "lavan" (fibre 2) and the weakest (it is also of the opposite sign) in cuprammonium rayon (fibre 4). In order to measure  $\Delta n$  precisely it is convenient to use a screw micrometer with its hair-line in the image plane. For this purpose the scheme of Fig 1 is replaced by one of the two variants shown in Fig 3: two Wollaston prisms  $W_1$  and  $W_2$  are used and the micrometer hair-line is placed in the image plane Q. This idea is due to L.A. Fedin (author's certificate No. 604720/26 dated July 25, 1958). Double refraction ( $n_{||} - n_{\perp}$ ) of a uniform fibre is now calculated from

$$(n_{||} - n_{\perp}) = \frac{R\lambda}{E\lambda S}, \quad (7)$$

where R is the area (measured microphotometrically) bounded by the curved interference band in the fibre and the original rectilinear band

Card 2/3

Measurement of Double Refraction of Fibres

SOV/51-6-5-28/34

(c.f. Fig 4, part A),  $E$  is the separation between undisplaced bands,  $M$  is the magnification of the microscope and  $S$  is the cross-sectional area of the fibre. There are 4 figures and 2 references, 1 of which is German and 1 English.

SUBMITTED: December 4, 1958

Card 3/3

AUTHOR: Fedin, L. A.

TITLE: On the application of a thin Lummer-Ghercke plate.  
(O primeneniі tonkoy plastinki Lyummera - Gerke):

PERIODICAL: Astronomicheskii Zhurnal, 1957, Vol.34, No.1, pp.135-138 (USSR)

ABSTRACT: It is shown, using a conventional argument (Tolansky (3)), that the resolving power of a thin (0.2 mm) Lummer-Ghercke plate as calculated by H. V. Merkvlov (1) is incorrect. The figure given by him is

$$= 6.1 \times 10^7$$

whereas the correct value is

$$= 2.43 \times 10^4$$

This is, of course, of the order of the resolving power of a prism spectrograph. The same applies to the dispersion of the plate.

The spectral range of the plate is only 10 - 15 Å and there are considerable constructional difficulties. On balance, the thin Lummer-Ghercke plate is of doubtful value. 1 Figure and 1 Table. 5 references, all of which are Russian.

Recd. Oct. 15, 1955.

ALEKSANDROV, V.Ya., prof.; BRODSKIY, V.Ya.; BRONSHTEYN, A.A.;  
BRUMBERG, Ye.M.; VAKHTIN, Yu.B.; VINNIKOV, Ya.A.;  
GAYTSKHOKI, V.S.; GOROSHCHENKO, Yu.L.; GULYAYEV, V.A.;  
ZHINKIN, L.N.; ZAVARZIN, A.A.; ZALKIND, S.Ya.; ZBARSKIY,  
I.B.; KATSNEL'SON, Z.S.; KOMISSARCHIK, Ya.Yu.; LEVIN, S.V.;  
MARAKHOVA, I.I.; MASHANSKIY, V.F.; MOSEVICH, T.N.; NIKOL'SKIY,  
N.N.; PESHKOV, M.A.; POLENOV, A.A.; POLYANSKIY, Yu.I.;  
ROZENTAL', D.L.; RUMYANTSEV, P.P.; TITOVA, L.K.; FEDIN, L.A.;  
KHEYSIN, Ye.M.; CHERNOGRYADSKAYA, N.A.; TROSHIN, A.S., otv.  
red.; MEYSEL', M.N., red.; MIKHAYLOV, V.P., red.; NEYFAKH,  
S.A., red.; PARIBOK, V.P., red.; POLYANSKIY, Yu.I., red.;  
RAYKOV, I.B., red.

[Manual on cytology in two volumes] Rukovodstvo po tsitologii v  
dvukh tomakh. Moskva, Nauka, Vol.1. 1965. 571 p.  
(MIRA 18:2)

1. Akademiya nauk SSSR. Institut tsitologii.



KHOKHRYAKOV, V., kand. tekhn. nauk; SHAGANSKIY, R., inzh.; LEBEDEV, A., inzh.;  
GRICHENKO, I.; FEDIN, L.; TELYATNIKOV, Ya., akkumulyatorschik

Readers' letters. Avt. transp. 37 no.12:43-44 D '59.

(MIRA 13:3)

1. Zhigulevskoye passazhirskoye avtokhozyaystvo (for Telyatnikov)  
(Motor vehicles)

FEDIN, L.A.; AGROSKIN, L.S.

Television microscope as an example of the use of physical  
research methods in biology. Biofizika 4 no. 4:476-482 '59.

(MICROSCOPY) (TELEVISION)

(MIRA 14:4)

FEDIN, L.A.; AGROSKIN, L.S.

Microscope with television, an example of application of physical methods of research in biology. *Analele biol* 14 no.1:181-191 Ja-Mr '60.

FEDIN, Leonid Andreyevich; PAPIYANTS, K.A., kand. fiziko-matem. nauk, retsenzent; KOROLEV, N.V., inzh., retsenzent; IOFFE, G.A., red.; TOKAR', V.M., red. izd-va; ORESHKINA, V.I., tekhn. red.

[Manual on microscopes, their accessories, and ~~lenses~~] Mikroskopy, prinadlezhnosti k nim i lupy; spravochnaya kniga. Pod red. G.A.Ioffe. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz, 1961. 251 p.

(Microscope)

(MIRA 14:10)

BERESTNEV, V.A.; DUBOVA, L.S.; PRYANIKOVA, T.S.; FEDIN, L.A.

Inhomogeneity of oriented fibers. Vysokom. soed. 6 no.7:1302-  
1307 JI '64 (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyslennosti.

FEDIN, M. (g.Rostov-na-Donu)

Active participation of the population in the improvement of  
public areas and services of the city. Zhil.-kon.khoz. 9  
no.12:13-14 '59. (MIRA 13:4)  
(Rostov-on-Don--Municipal services)

FEDIN, M., referent

City of the Ob'. Zhil.-kom.khoz. 11 no.6:5-6 Je '61.

(MIRA 14:7)

1. Sovet Ministrov RSFSR.

(Novosibirsk—Municipal services)

SAPUNOV, Petr Yegorovich, zven'yevoy, Geroy Sotsialisticheskogo Truda.  
Prinimali uchastiye: FEDIN, M.A.; SALOMAKHIN, I.I.; SAFRONOV,  
V.V.; SHELEMENTSEV, I.T. CHELYSHKIN, Yu.G., red.; SERGEYEV,  
V.I., red.; SOKOLOVA, N.N., tekhn.red.

[Sixty-two centners of corn per hectare] 62 tsentnera zerna  
kukuruzy s hektara. Moskva, Izd-vo sel'khoz.lit-ry, zhurnalov  
i plakatov, 1962. 77 p. (MIRA 15:4)

1. Kolkhoz "Krasnoye znanya" Dmitrovskogo rayona Orlovskoy  
oblasti (for Sapunov).  
(Dmitrov District—Con (Maize))



FEDIN, M.A. (pochtovoye otdeleniye Shatilovo, Orlovskoy obl.)

Effect of sowing dates on the vulnerability of corn by the Swedish  
fly and corn smut. Zashch.rast.ot vred.i bol. 7 no.5:29 My '62.  
(MIRA 15:11)

1. Zamestitel' direktora po nauke Orlovskoy sel'skokhozyaystvennoy  
opytnoy stantsii.

(Orel Province--Corn (Maize)--Disease and pest resistance)  
(Frit flies) (Smuts)

FEDIN, Marat Aleksandrovich; SLEPTSOVA, K., red.; KUZIN, N., tekhn.  
red.

[Corn] Kukuruz. Orel, Orlovskoe knizhnoe izd-vo, 1963. 130 p.  
(MIRA 16:12)  
(Corn (Maize))

**YEDIN, M.Y. (Moskva)**

With the aid of local councils. Sov.zdrav. 19 no.1:17-20 '60.  
(MIRA 13:4)

(HOSPITAL PLANNING AND CONSTRUCTION)

FEDIN, N.

Creative work on building projects. Prof.-tekh. obr. 11 no.5:22-  
23 Ag '54. (MLRA 7:9)

1. Direktor stroitel'noy shkoly fabrichno-zavodskogo obucheniya.  
(Grozny--Building trades--Study and teaching)(Building trades--  
Study and teaching--Grozny)

*Fedin N.*  
FEDIN, N.

Without departmental partitions. Sov. profsoiuzy 6 no.1:36-38  
Ja '58. (MIRA 11:1)

1. Predsedatel' Gor'kovskogo oblastnogo soveta profsoyuzov.  
(Trade unions)

1. FEDIN, N.F.
2. USSR, (600)
4. Technology
7. Kzyl-Ordin massif of irrigation of the left shore, of the lower reaches of the Syr-Dar'ia river, Alma-Ata Izd. AN Kazakhskoi SSR, 1952.
9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

USSR/Geology - Mineralogy

Card : 1/1 Pub. 123 - 11/19

Authors : Fedin, N. P., Cand. of Geological-Mineralogical Sciences

Title : Determination of water output coefficient of rocks

Periodical : Vest. AN Kaz. SSR 12, 78 - 83, December 1953

Abstract : An experimental method for the determination of the coefficient of water extraction from rocks, is described. Three USSR references (1934-1950). Graphs, diagram.

Institution : Acad. of Sc. Kaz. SSR, Alma-Ata

Presented by : Academician K. I. Satpaev

FEDIN, N. F.

"Problems of Studying the Mineralization of Ground Waters of Irrigated Regions," Izv. AN KazakhSSR. Ser. geol., No 16, 76-84, 1953

The authors considers the laws governing the transposition and accumulation of salts in the ground waters of irrigated regions and of neighboring territories on the example of the left-bank portion of the Kzyl-Orda land mass being irrigated. On the basis of a processing of the data of more than 250 chemical analyses of water by methods of variational statistics, the author obtains typical analyses for each degree of mineralization of the ground waters and obtains curves showing the dependence of this degree on depth of the water and remoteness from irrigated land.

RZhGeol, No 1, 1955



FEDIN, N. F.

USSR/Miscellaneous - Archaeology

Card 1/1 : Pub. 123 - 10/13

Authors : Fedin, N. F., and Vladimirov, N. M.

Title : Archaeological finds in the region between the Volga and the Ural

Periodical : Vest. AN Kaz. SSR, 11/2, 75-81, Feb 1954

Abstract : In the region between the Volga and the Ural, which is flooded in the springtime, there is a slightly higher and drier area in which relics of an ancient civilization were found. A study of these, with a view to determining their origin and date, led to the conclusion that the region was inhabited from the Neolithic era up to the middle of the first millenium A. D. Illustrations; map.

Institution : ....

Submitted : .....

FEDIN, N.F.

Formation of the chemical composition of underground waters.

Trudy Lab.gidrogeol.probl. 16:155-159 '58.

(MIRA 12:2)

(Water, Underground--Composition)

FEDIN, N.F.

Some indications of recent movements in the Uzynkargaly Valley  
(Trans-Ili Ala-Tau). Uch.zap.Kazakh.un. 37 no.4:109-112 '58.  
(MIRA 15:4)

(Uzynkargaly Valley--Earth movements)

FEDIN, N.G.

Laboratory work on methodology in mathematics. Uch.zap.MGZPI  
no.3:93-102 '59. (MIRA 13:5)  
(Mathematics--Study and teaching)

MANTUROV, Oleg Vasil'yevich; ~~SOLNTSEV~~ Yuriy Konstantinovich;  
SORKIN, Yuriy Isaakovich; ~~FEDUN~~, Nikolay Georgiyevich;  
PUL'KIN, S.P., doktor fiz.-mat. nauk, retsenzent;  
KONDRAT'YEV, V.A., kand. fiz.-mat. nauk, retsenzent;  
MISHIN, V.I., kand. ped. nauk, retsenzent; VEYTSMAN,  
I.B., prepodavatel', retsenzent; KREYDLIN, Ye.G., pre-  
podavatel', retsenzent; PYSHKALO, A.M., prepodavatel',  
retsenzent; DITKIN, V.A., prof., red.; YAKOVKIN, M.V.,  
red.

[Explanatory dictionary of mathematical terms; textbook  
for teachers] Tolkovyi slovar' matematicheskikh terminov;  
posobie dlia uchitelei. Moskva, Prosveshchenie, 1965.  
539 p. (MIRA 18:7)

FEDIN, Nikolay Yermolayevich; MAKAROVA, E.A., red.; SHADRINA, N.D., tekhn.  
red.

[Trade-union organization and technological progress] Profsoiuznaia  
organizatsiia i tekhnicheskii progress. Moskva, Izd-vo VTs SPS  
Profizdat, 1961. 77 p. (MIRA 14:11)

1. Predsedatel' Gor'kovskogo oblastnogo soveta profsoyuzov (for Fe-  
din).

(Trade unions)

(Technology)

BUKALOV, Valeriy Mikhaylovich; NARUSBAYEV, Aleksandr Abdugaparovich;  
GERASIMOV, V.N., kand. tekhn. nauk, retsenzent; FEDIN, P.G.,  
inzh., retsenzent; YEGOROV, S.A., nauchn. red.; PENOVA, Ye.M.,  
red.

[Design of atomic submarines; from materials in the foreign  
press] Proektirovanie atomnykh podvodnykh lodok; po materia-  
lam inostrannoi pechati. Leningrad, Sudostroenie, 1964.  
287 p. (MIRA 17:7)

SIDORENKO, G.I.; FEDIN, P.G.

Vicarious menstruations in the form of pulmonary hemorrhages. Probl.  
endok. i gorm. 10 no.6:53-55 N-D '64. (MIRA 18:7)

1. Kafedra fakul'tetskoy terapii Minskogo meditsinskogo instituta  
i 4-ya klinicheskaya bol'nitsa (glavnyy vrach Ye.M.Sel'dimirova),  
Minsk.



GALUZEVSKIY, Georgiy Nikolayevich[deceased]; FEDIN, P.S., red.;  
SMIRNOVA, R.N., red. izd-va; LELYUKHIN, A.A., tekhn. red.

[Accounting in repair and construction organizations]Bu-  
khgalterskii uchet v remontno-stroitel'nykh organizatsiyakh.  
Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1962. 182 p.

(MIRA 15:9)

(Construction industry--Accounting)

KHMEI'NITSKAYA, Vera Vladimirovna; FEDIN, P.Ye., otv. red.;  
ZAKHARUTINA, G., red.

[Group system of raising dam-suckled calves in the Maritime  
Territory] Podsoono-gruppovoe vyrashchivanie molodniaka v  
Primorskom krae. Vladivostok, Primorskoe knizhnoe izd-vo,  
1962. 37 p. (MIRA 17:4)

*FEDIN, T.*  
 COUNTRY : Rumania  
 CATEGORY :  
 E-2  
 ABS. JOUR. : RZKhim., No. 1959, No. 86180  
 AUTHOR : Banateanu, Ch.; Serbanescu, A.; \*  
 INST. : Bucharest Institute of Petroleum and Gas  
 TITLE : Rapid Determination of Phosphoric Acid in  
 Kola Apatite and Bone Meal by the Method  
 of Copaux.  
 ORIG. PUB. : Lucrarile Inst. petrol si gaze Bucuresti,  
 1957, 3, 345-352  
 ABSTRACT : For determination of  $P_2O_5$  in apatite and bone  
 meal, use is made of the method of Copaux (Copaux H., C. R.  
 des Seances de l'Acad. des sciences, 1921, 173, p. 656),  
 based on formation of ether-phosphomolybdic acid complex  
 in an acidic medium (pH 0.45-0.65). The latter, after  
 centrifugation, is separated from excess ether and water,  
 as a yellow, oily liquid, the volume of which depends on  
 $P_2O_5$  content of the sample. To the sample being analyzed  
 (5 g) are added 10 ml concentrated  $HNO_3$  and 50 ml concen-  
 trated  $H_2SO_4$ , the mixture is evaporated until  $SO_3$ -fumes  
 are evolved, cooled, 200 ml water are added, heated to a  
 boil, cooled, diluted with water to 500 ml, and filtered.  
 CARD: 1/3  
 \*Vrabiescu, E.; Fedin, T.

10f

COUNTRY : Rumania  
CATEGORY :

E-2

ABS. JOUR. : RZKhim., No. 1959, No. 86180

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : Bone meal is first calcined.  $P_2O_5$  is determined in a special test tube into which are placed 2 ml of the above-stated filtrate, 3 ml water, 5 ml 15% HCl (or 20%  $H_2SO_4$ ), 4 ml ether (free from  $C_2H_5OH$ ), and 5 ml 14% solution of Na-molybdate, the mixture is thoroughly stirred and centrifuged for 3 minutes. The ether-phosphomolybdic complex collects in the lower, narrower, graduated part of of the test tube, where its volume can be read off (with an error of up to 0.01 ml). It was ascertained that there is exact proportionality between volume of the liquid and content of  $P_2O_5$ ; therefore the latter is determined by the method of interpolation, using for this purpose the data

CARD: 2/3

COUNTRY : Rumania  
CATEGORY :

E-2

ABS. JOUR. : RZKhim., No. 1959, No. 86180

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : obtained with a standard solution of  $\text{KH}_2\text{PO}_4$   
( $\approx 6$  g/liter). In accuracy, the method is not inferior to  
the gravimetric; duration of determination is of 15 minutes.  
B. Manole.

CARD: 3/3

105

L 38301-66 T DJ/WE  
ACC NR: AT6029143

SOURCE CODE: RU/0007/66/017/002/0004/0094

AUTHOR: Serbanescu, Ana (Engineer); Fedin, Tamara (Engineer); Popovici, Tatiana (Engineer)

ORG: none

TITLE: Determination of the total sulphur content of some Rumanian crude oils from different geological formations

SOURCE: Petrol si gaze, v. 17, no. 2, 1966, 04-94

TOPIC TAGS: chemical composition, crude petroleum, petrology

ABSTRACT: A report on the determination of the total sulphur contents of 19 crude oils from well-known geologic formations in six different Rumanian petroliferous structures. The importance of sulphur contents analysis is discussed, and an attempt is made to correlate the sulphur contents with the age of the geological formations. Orig. art. has: 2 figures, 2 formulas and 5 tables. [JPRS: 36,556]

SUB CODE: 11, 07 / SUBM DATE: none / ORIG REF: 017 / SOV REF: 005  
OTH REF: 051

Card 1/1 LC

0917

2701

R/007/61/012/001/003/003  
A231/A126

AUTHORS: Constantinescu, M., Constantinescu, T. and Fedin, Tamara

TITLE: Contributions to the study of the catalytic condensing of ethylene with hydrogen sulfide

PERIODICAL: Petrol si Gaze, v. 12, no. 1, 1961, 33 - 43

TEXT: The article presents a solution regarding the production of ethyl-mercaptan from ethylene and  $H_2S$  with the aid of palladious and nickel sulfide catalysts. In a previous work: [Ref. 1: Constantinescu, M., and Constantinescu, T.: "Petrol si Gaze", no. 7, 1959, 298-304], the authors have shown that mercaptans can be produced by three method groups: i.e. by treating a neutral alkylic monoester ( $R - SO_4Na$ ) with  $Na SH$ ; from alkylic halogens ( $R - Cl$ ) with  $NaS$  under pressure, and by catalytic methods. The catalysts allow a synthesis starting with reactants such as ethyl alcohol or ethylene, which directly lead to ethyl-mercaptan. In the above mentioned work (Ref. 1), the authors have studied the synthesis of mercaptans from lower alcohols. Since in the near future ethylene will be made from cracking gases or chemical reactions of methane, the study has been extended also on the synthesis of ethylene and hydrogen sulfide:  $C_2H_4 + H_2S$

Card 1/3

Contributions to the study ...

R/007/61/012/001/003/003  
A231/A126

⇌  $C_2H_5SH$ . According to the technical literature the photosynthesis with ultra-violet rays has also been studied before beside the above mentioned three methods. The majority of the publications refer to higher olefines, but not to ethylene. On the basis of the foreign literature, the authors have established that only the photochemical method supplied a higher efficiency (80%) for propylmercaptan at a temperature of  $0^{\circ}C$ . For ethylmercaptan the temperature is lower and the efficiency is negligible. The photochemical method, however, is very difficult to be applied in engineering, and needs an additional catalyst. The only practical method is the catalytic method after having found a catalyst which supplies corresponding results at a temperature as low as possible and at usual pressure. The oldest examinations were carried out by H.R. Duffey in 1934, who used different catalysts and obtained a maximum ethylene transformation of 23.3% on a nickel catalyst. The task of this work is to find a highly efficient catalyst for the conversion of ethylene into ethylmercaptan. On the basis of the studied literature, the authors could establish that generally the catalysts, which supply a rather weak efficiency for the desired reaction, are the catalysts used also in hydrogenation and dehydrogenation reactions. For this purpose, this field has also been studied and proved to be the right way. A.W. Schultze's publication [Ref. 4: A.W. Schultze, J.P. Lyon, and G.H. Schort: "Ind. Eng. Chemis-

Card 2/3



Contribution to the study ...

R/007/61/012/001/003/003  
A231/A126

try", Ibid: US 2,392.555; 40, 12, 1948] clearly shows that no higher mercaptan efficiency (66%) was obtained even in the presence of a catalyst, except in two recirculating stages with different catalysts for every stage and different pressures, i.e. 33 and 100 atm, when the reactants were partially in liquid phase. The authors' study was conducted to find a solution usable at ordinary pressure, to avoid technical complications, physical condensations, etc. This paper establishes the conditions and main parameters necessary for the transposition to the pilot or industrial scale. There are 5 tables, 1 figure and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: Ref. 2: W.F. Vaughan, F.F. Rust, J. Evans: Org.Chem. 7,466,1942. Ref. 4: A.W. Schultze, J.P. Lyon, G.H. Schort: Ind. Eng. Chemistry Ibid.: U.S. 2,392.555; 40, 12, 1948.

SUBMITTED: August 29, 1960

Card 3/3

BANATEANU, Gh.; CONSTANTINESCU, M.; FEDIN, T.

Behavior of the bentonitic rocks in contact with watery  
solutions containing various chemical substances. Pt. 1.  
Bul Inst Petrol Rum 9: 39-55 '63.

L 18316-65 EWO(j)/EWT(1)/EWP(o)/EWG(k)/EWT(m)/EPT(c)/EPT(n)-2/EPR/EEC(b)-2/EWP(b)  
 Pa-6/Pr-4/Ps-4/Pu-4 IJP(o)/AFWL/SSD Wn/AT/WH  
 8/0089/64/017/005/0329/0335  
 ACCESSION NR: AP4049532

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov, A. S.; Gorlov, L. V.; Gubanov, Yu. D.; Yefremov, A. A.; Zhukov, V. F.; Ivanov, V. Ye.; Kovy\*rzin, V. K.; Koptelov, Ye. A.; Kosovskiy, V. G.; Kukharkin, N. Ye.; Kucherov, R. Ya.; Laly\*kin, S. P.; Markin, V. I.; Nechayev, Yu. A.; Pozdnyakov, B. S.; Ponomarev-Stepnov, N. N.; Samarin, Ye. N.; Serov, V. Ya.; Usov, V. A.; Fedin, V. G.; Yakovlev, V. V.; Yakutovich, M. V.; Khodakov, V. A.; Kompaniyets, G. V.

TITLE: The "Romashka" high-temperature reactor-converter /9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, research reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters, test results, and operating experience of the "Romashka" reactor-

Cord 1/8

L 18316-65

ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium dioxide enriched to 90%  $U^{235}$ . Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000C, respectively. The power ratings are 0.50-0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is  $10^{13}$  neut/cm<sup>2</sup> sec in the center of the active zone and  $7 \times 10^{12}$  on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs. Orig. art. has: 8 figures and 1 formula.

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POSPELOV, G.Ye., doktor tekhn. nauk, prof.; FEEIN, V.G., inzh.

Consideration of the static characteristics of the load in the selection of compensating devices for voltage regulation in power distribution networks. Izv. vys. ucheb. zav.; energ. 9 no.1:9-14 Ja '66. (MIRA 19:1)

1. Belorusskiy politekhnicheskii institut. Predstavlena kafedroy elektricheskikh sistem i setey. Submitted January 5, 1965.

ACCESSION NR: AP4015146

S/0290/63/000/003/0143/0145

AUTHOR: Levinson, M. S.; Fedin, V. M.

TITLE: The different effect of ultrasonic oscillations on the electrophoretic movement of protein fractions in human blood plasma

SOURCE: AN SSSR. Sib. otd. Izv., no. 12. Ser. biologo-med. nauk, no. 3, 1963, 143-145

TOPIC TAGS: human blood, blood serum protein fraction, blood plasma protein fraction, ultrasonic biological action, protein fraction electrophoretic movement, electrophoregram, 800 kc ultrasonic frequency

ABSTRACT: This investigation was carried out to determine whether ultrasonic oscillation acts specifically on the separate protein fractions of vibrated blood serum and vibrated plasma. Nondiluted blood serum and plasma samples taken from different human donors were vibrated in test tubes at 800 kc at an intensity of  $7.6 \text{ w/cm}^2$  for 1 hr at room temperature. Experimental and control samples were analyzed by electrophoresis (EFA-1 unit) and electrophoregrams were made. Statistical processing of findings shows that electrophoretic

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ACCESSION NR: AP4015146

distribution shifts of protein fractions for vibrated blood and for vibrated serum are the same. Protein is found to increase in the  $\alpha_1$ -,  $\alpha_2$ -, and beta-globulin fractions of vibrated blood and serum. These increases indicate that during vibration the separate protein fractions change their electrical properties related to their electrophoretic movement rate. The possibility that the splitting of albumin and gamma-globulin molecules with ultrasonic action may also affect the relative increase of alpha- and beta-globulins is not excluded. The mechanism of ultrasonic biological action requires further investigation. Orig. art. has: 2 tables.

ASSOCIATION: Krasnoyarskiy gosudarstvennyy meditsinskiy institut, (Krasnoyarsk State Medical Institute); Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk (Physics Institute of the Siberian Division, AN SSSR)

SUBMITTED: 31Aug62

DATE ACQ: 13Mar64

ENCL: 00

SUB CODE: LS

NR REF SOV: 010

OTHER: 003

Card 2/2

ZHIVAYKIN, L.Ya.; FEDIN, V.N.; SHEVCHUK, M.S.; BLYAKHER, I.G.

Effect of the concentration of monohydrate on the degree of absorption of sulfur trioxide. Khim.prom. no.7:505-506 J1 '63.  
(MIRA 16:11)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut i Krasnoural'skiy medeplavil'nyy kombinat.



18.5100

TTU10  
SOV/133-60-2-10/25

AUTHORS: Bayrakov, V. I., Fedin, V. P.

TITLE: Investigation of 1,200-mm Reversing Thin-Strip Mill  
With Coilers Located in Heating Furnace

PERIODICAL: Stal', 1960, Nr 2, pp 130-133 (USSR)

ABSTRACT: The authors investigated the power parameters of a two-high mill with coilers inside the furnaces at Nove-Lipetskiy Metallurgical Plant in Lipetsk (Nove-Lipetskiy metallurgicheskiy zavod). The following strips from St.2 and St.3-steel (regular C steel) were rolled: 8 - 10 - 12 - 16 - 20 x 1,000 mm and 11 x 750 mm in roughing stand; 1.5 - 1.75 - 2.0 - 2.5 - 3.0 x 710 mm, 1.5 - 1.75 - 2.5 - 3.0 x 620 mm, 2.0 - 2.5 - 3.0 - 4.0 x 1,000 mm and 1.85 - 2.0 x 900 mm in finishing stand. The following measurements were made in the course of tests: (1) metal pressure on rolls (by wire pickup) and torsional moments during rolling; (2) current voltage, and number of revolutions

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Investigation of 1,200-mm Reversing  
Thin-Strip Mill With Coilers Located  
in Heating Furnace

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of main drive and coiler motors; (3) size and temperatures by optical pyrometer of strip being rolled; (4) rolling time. As a rule, metal pressure on rolls increased from roughing to finishing passes. Maximum pressure (2,040 tons) in rolling  $8 \times 1,000$  mm strip was observed in the seventh pass. Figure 1 shows the relation between mean pressure and  $l:h_m$  ratio in roughing stand, where  $l$  = length arc of contact,  $h_m$  = mean height of cross section of strip being rolled.

As this ratio increased, the mean specific pressure grew due to a stronger effect of external friction, speed of deformation, and lower metal temperature. A comparison between theoretical and practical data showed good conformity. Theoretical data were calculated according to a method advanced by A. I. Tselikov (Stal', Nr 5, 1958). In rolling  $2.0 \times 1,000$  mm strip, maximum experimental pressure (1,260 tons) was observed in the second pass.

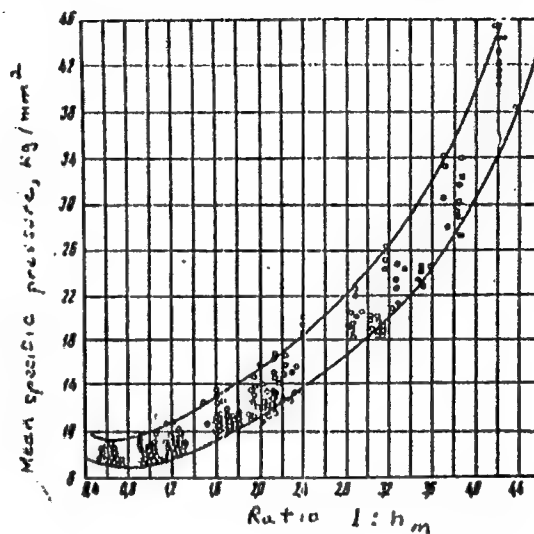
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Investigation of 1,200-mm Reversing  
Thin-Strip Mill With Coilers Located  
in Heating Furnace

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SOV/133-60-2-10/25

Fig. 1. Mean specific  
pressure of metal on rolls.  
 $l:h_m$  ratio in roughing  
stand.



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Investigation of 1,200-mm Reversing  
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in Heating Furnace

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SOV/133-60-2-10/25

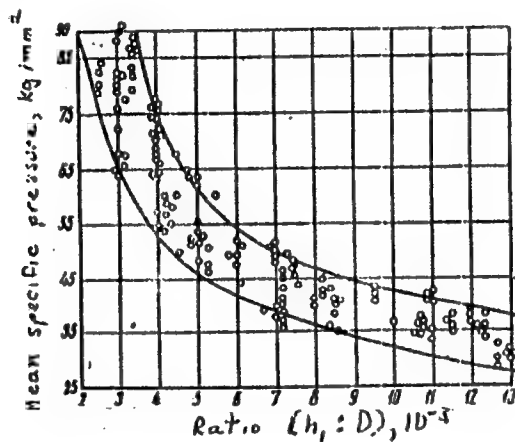
Figure 3 shows the relation between  $p_m$  and  $h_1:D$  ratio in finishing stand; as the strip gets thinner, this ratio decreases while  $p_m$  increases. Maximum specific pressure ( $129 \text{ kg/mm}^2$ ) was achieved in rolling 1.5 mm thick strip. A comparison of experimental and calculated pressure in finishing stand showed, on the whole, good conformity, although in some cases the difference amounted to 30%. The latter is due to errors in measurements of metal temperatures and reduction per pass. Maximum torsional moments on the main motor shaft of the roughing stand exceed the nominal moment by 1.2-2.5 times and by 1.4-2.0 times in the finishing stand, which is within permissible limits. Maximum specific power consumption in roughing stand did not exceed 24 kw/hr/ton in rolling an  $8 \times 1,000 \text{ mm}$  strip from a 120 mm thick slab. Rolling  $12 \times 1,000 \text{ mm}$  strip from the same slab requires a power consumption of 10.5-14.0 kw/hr/ton. This

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Investigation of 1,200-mm Reversing  
Thin-Strip Mill With Coilers Located  
in Heating Furnace

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SOV/133-60-2-10/25

Fig. 3. Mean specific pressure of metal on rolls.  
 $h_1:D$  ratio in finishing stand.



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Investigation of 1,200-mm Reversing  
Thin-Strip Mill With Coilers Located  
in Heating Furnace

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SOV/133-60-2-10/25

scattering is primarily due to uneven temperature conditions in rolling. Motor was overheated in rolling  $10-8 \times 1,000$  mm (from 2.1 to 2.5) in roughing stand. In rolling thicker or narrower strip the motor has a 10-30% heating margin. With a root-mean-square current in the finishing equalling  $I_{r-m-s} = (0.99-1.14)I_{nom}$ , the motor is also overheated during the rolling of  $2.5$  to  $2.0 \times 1,000$  mm strip in 5 passes, while working normally in rolling thicker or narrower strip. There are 6 figures; 2 tables; and 1 Soviet reference.

ASSOCIATION:

VNIIMETMASH

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18.5100

78043

SOV/130-60-3-12/23

AUTHORS: Fedin, V. P., Prikhod'ko, I. F., Gritsuk, N. F.

TITLE: Concerning Trends in the Development of Guides and Repeaters

PERIODICAL: Metallurg, 1960<sup>5</sup>, Nr 3, pp 17-22 (USSR)

ABSTRACT: Before 1950 rolling mills were equipped with slider-types only. At present roller-type guides are added to the above. Existing guides are classified according to: (1) position in stand; (2) design of grade units; (3) type of friction between strip and guide elements. Roll pass design has a considerable effect on the design of entry guide units. Delivery guides prevent bending of strip ends and secure correct entry into repeater. In rolling shapes and rails, slider-type guides are used. This is justified by the simplicity of such guides. In Soviet as well as foreign practice, roller guides with one pair of rollers (such as entry boxes with rollers set on flat springs) are popular.

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Concerning Trends in the Development  
of Guides and Repeaters

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SOV/130-60-3-12/23

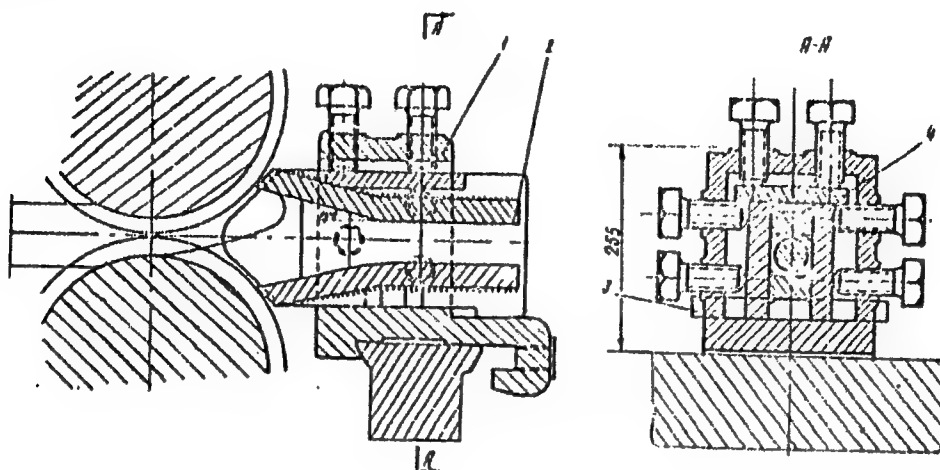
Similar designs are used at finishing stands of section mills of Magnitogorsk Metallurgical Combine (MMK), Chelyabinsk, Makeyevsk, Stalino, Krivoy Rog, and "Serp i Molot" Metallurgical Plants (Chelyabinskiy, Makeyevskiy, Stalinskiy, Krivorozhskiy i "Serp i molot" metallurgicheskiye zavody). Advantages: easy set-up, dependability, low forces in pushing strip through rollers. For simple shapes (rounds and squares) funnel-type guides are recommended, as designed by N. F. Gritsuk (see Fig. 2).

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Concerning Trends in the Development of  
Guides and Repeaters

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Fig. 2. Receiving funnel; (1) box; (2) funnel; (3)  
setting bar; (4) clamp.

Concerning Trends in the Development of  
Guides and Repeaters

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SOV/130-60-3-12/23

S. V. Merekin suggested the use of twist rolls which were eventually modernized at Makeyev Metallurgical Plant upon the proposal of V. F. Laganskiy and K. V. Kuchevskiy. Roller straighteners set behind the finishing stands prevent the strip from twisting before delivery to cooler. The life of roller-type guides and repeaters is prolonged by increasing the durability of main parts, i.e., rollers. In this connection rollers from gray and alloy cast iron with chilled surface as well as from low and medium carbon steel with surface hardfaced by TsI-IM, Ts-1, and Ts-2 hard-alloy electrodes are used. These rollers are reconditioned by repeated hard-facing directly in the shop. Roller-type guides are particularly recommended for intermediate and finishing stands of rolling mills for rolling nonferrous metals and alloys which are very sensitive toward scratching. Roller-type guides used for small-shape and rod mills are of larger size than slider-type guides.

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Concerning Trends in the Development  
of Guides and Repeaters

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SOV/130-60-3-12/23

Therefore, slider-type entry guides are preferred. Their wear resistance is increased by 7.5 to 13.5 times by chromizing or boronating work surfaces. In this respect, the authors recommend a study of the experience of such advanced countries as the United States and Sweden. There are 6 figures.

ASSOCIATION: All-Union Scientific Research Institute of Metallurgical Machinery and Magnitogorsk Metallurgical Combine (VNIIMETMASH)

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PRIKHOD'KO, I.F.; VEDIN, V.P.; IVANOV, Yu.G.

Wear-resistant materials for the manufacture of roller bearings  
for the equipment of rolling mill fittings. Metallurg 5  
no.8:27-31 Ag '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metalloobrabotki  
i mashinostroyeniya.  
(Rolling mills) (Roller bearings)

S/133/61/000/003/009/011  
A051/A033

AUTHORS: Shevchenko, A. A., Doctor of Technical Sciences; Gulyayev, G. I., Candidate of Technical Sciences; Anisiforov, V. P., Candidate of Technical Sciences; Arutyunov, I. G., Candidate of Technical Sciences; Yurgelenas, V. A., Engineer, and Fedin, V. P., Engineer

TITLE: The performance of two-high reducing mills with individual drive

PERIODICAL: Stal', no. 3, 1961, 251 - 256

TEXT: When planning three-high reducing mills, the VNIITMETMASH and UkrNITI made a thorough study of the two-high reduction mills with individual drive, not supplied with rotation-stabilizers. In order to match the operation of these two types of mills the single deformation values were taken a little higher ( $m_1 = 3.5 + 4.2 \%$ ) than usual in Soviet plants. The tube dimensions varied between  $96 \times 3.25 - 3.5$ ;  $96 \times 4 - 4.5$  and  $96 \times 5$  mm. The motor speeds for these types of tubes are given in table 2. Before reduction the tubes were heated to  $1040 - 1080^\circ\text{C}$ , the number of motor revolutions was recorded on the switchboard by means of an MM type tachovolt-Card 1/6

S/133/61/000/003/009/011  
A054/A033

The performance of two-high reducing .....

meter with a relatively low accuracy ( $\pm 10$  rpm). The data compiled for the average change in wall-thickness at the end and central parts of the tubes rolled in 21 and 17 stand mills are given in tables 3 and 4. They show that when the tension is increased the wall-thickness in the central part of the tube decreases, while the increase in wall-thickness at the tube ends will reach a maximum only at tensions of 0 - 0.5 %. In all other cases any increase in tension reduces the wall-thickness at the tube ends. Table 4 shows that the deviation in wall-thickness in lateral direction suddenly increases at the ends, irrespective of the tension, while it decreases in the central parts, when the tension is raised. With templates of 96 x 4 and 96 x 5 mm tubes it was established that the transverse section remains fairly stable even when no tension at all was applied, whereas the 96 x 3.25 mm tubes displayed defects (beads and fractures) when reduced without tension, by 5.4 and 7 %. When applying a tension of 3.5%, no defects were observed in the walls of the 96 x 3.5 mm tubes. The values of kinematic tension of 3.5 % in the 21-stand and of 4% in the 17-stand mills does not represent the limit. Experiments showed that it was possible to increase the kinematic tension and to produce tubes with even thinner walls in the central parts. If the tubes are rolled at the right temperature and

The performance of two-high reducing....

S/133/61/000/003/009/011  
AO51/ AO33

the roll speed adjusted carefully, the coefficient of tension can be as high as 0.7 - 0.8 (Ref. 7: G.I. Gulyayev; V. A. Yurgelenas: Determination of Some Basic Technological Parameters of Tube Reduction with Tension. Transactions of the UkrNTO ChM, 1958, vol. 13). Tests carried out to establish the maximum values of torques and those for stabilized operation show that the torque values characterize the non-uniform load of the stands which in the first place depends on the adjustment of the roll-speed. When the tension is increased from 3.5 to 4%, the torques of the middle-stand motors decrease uniformly, once the rolling process has been stabilized. The tests also proved that in the experimental reductions the motors were not always loaded to full capacity, while overloading also occurred due to the inaccurate adjustment of the revolution of rolls, (n). When calculating the reduction of the mills, depending on the tension applied, the wall-thickness of the tube and partial deformation obtained in one stand have to be taken into account. The oscillogram of current intensity shows that, at the rate at which the tube proceeds to the next stand, the current intensity curve declines, under the effect of the frontal tension of the following stand. This step-like character of the de-

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3/133/61/000/003/009/014  
A-54/A033

The performance of two-high reducing ....

crease in current intensity indicates the moment, when the tube enters the next stand. When the tension at the rear (viewed from the preceding stand) is taken as constant, the maximum stretching force will be proportionate to the difference of the ordinates of the maximum and stabilized values of the current. The decrease in the general moment from the maximum to stabilized state will be proportionate to the moment acting on the stand investigated from the next following stand:

$$\Delta M_{\text{gen}} = T D_r \quad (1)$$

$$T = k \Delta I \quad (2)$$

$$\Delta I = I_{\text{max}} - I_{\text{stab}} \quad (3)$$

$$k = \frac{v}{1.03 n_{1,r} D_r} \quad (4)$$

where  $M_{\text{gen}}$  = general moment,  $k$  = coefficient of proportionality,  $v$  = vol-

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S/133/61/000/003/009/011  
A051/A033

The performance of two-high reducing ...

tage,  $v$ ,  $D_r$  = rolling diameter of the roll, mm,  $n_{i.r}$  = velocity of idle run of rolls, rpm,  $T$  = stretching force, kg,  $I_{max}$  and  $I_{stab}$  = current intensities for maximum and stabilized moments, a. ABSTRACTOR'S NOTE: subscripts gen. (general),  $r$  (rolling),  $i.r.$  (idle run),  $stab.$  (stabilized) are translations of the original  $\phi$  (obshchyy),  $\chi$  (katayushchyy),  $\chi\chi$  (kholostoy khod) and  $\chi\chi$  (ustanovlenyy). Based on these formulas it is possible to calculate the actual stretching forces and longitudinal stresses in the tube on the stand, when being reduced at different tensions and various initial wall-thicknesses. The distribution of forces and stresses of tension has no regular character; e.g., the maximum value of tension stress is 3.6 kg/sq mm (practically the yield point of the metal processed) while at a tension of 3.5% it amounts to 2.6 kg/sq mm and at 4% to 1.8 kg/sq mm. The maximum stretching force attains 2100 kg. The difference in stretching forces for the various stands of the mill are, to a certain extent, caused by the inaccurate adjustment of the rolls. The investigation of roll-speed shows that there is a deviation between the actual and the rated speed of the rolls, both in idle run and in operation. In some cases the speed increases for the subsequent rolls, sometimes, however, a

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S/133/61/000/003/009/014  
A051/A033

Ther performance of two-high reducing ...

deceleration is observed. The velocity drops on successive rolls affects the reduction process in several aspects: energy consumption, torques, forces, tension, etc. Therefore the correct adjustment of the number of roll revolution in stands with individual drive is of great importance, because variations in the roll speed result in an irregular change of energetic parameters, which unfavourably affects the tube quality. The tube walls will not be of uniform thickness and cracks may occur even at relatively low tensions. There are 5 figures, 4 tables and 8 references: 7 Soviet, 1 non-Soviet.

Card 6/6

S/137/61/000/007/020/072  
A060/A101

AUTHORS: Bayrakov, V. I., Fedin, V. P., Lazutin, A. G.

TITLE: Some data from the investigation of the operation of the reversing mill 1200 with reelers in the furnace

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 7, abstract 7D38  
("Tr. Konferentsii: Tekhn. progress v tekhnol. prokatn. proiz-va".  
Sverdlovsk, Metallurgizdat, 1960, 572-581)

TEXT: Investigations were carried out on the rolling of steel sheets mark St. 2 and St. 3 with thickness 1.5 - 2 mm and width 620 - 1,000 mm. It was established that: 1) the metal pressure on the rolls increases from the first passes to the last ones in the roughing stand and in the planishing stand - inversely; 2) the average specific pressure increases with the ratio of the length of the gripping arc to the mean thickness of the sheet being reduced (for the roughing stand); 3) the average specific pressure increases with decrease in the ratio of the strip thickness after reduction to the roll diameter (for the planishing stand); 4) the maximum torques on the shaft of the motor installed are within admissible limits; 5) the maximum specific energy expenditure does

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Some data from the investigation ...

9/137/61/000/007/020/072  
A060/A101

not exceed 24 kwh/ton; 6) to avoid motor overheating it is necessary to increase the number of passes.

V. Pospekhov

[Abstracter's note: Complete translation]

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POLUKHIN, P.I., prof., doktor tekhn.nauk; RAYRAKOV, V.I., kand.tekhn.nauk;  
FEDIN, V.P., inzh.

"Changes in the mechanical properties of metals and alloys under the  
effect of cold rolling" by V.A. Tret'iakov, K.M. Radchenko. Reviewed by  
P.I. Polukhin, V.I. Rayakov. V.P. Fedin. Stal' 21 no.2:155 F'61.  
(MIRA 14:3)

(Rolling (Metalwork))(Tret'iakov, V.A.)(Radchenko, K.M.)

S/133/61/000/012/002/006  
A054/A127

AUTHOR: Fedin, V.P.

TITLE: Rolling mills with reelers in the furnace (as a matter for discussion)

PERIODICAL: Stal', no. 12, 1961, 1,096 - 1,100

TEXT: Opinions are divided about the efficiency of reversing rolling mills with reelers in the furnace. Studies were carried out during a period of 3 years on the "1200" reversing rolling mill (with reelers in the furnace) of the Novolipetskiy metallurgicheskiy zavod (Novolipetsk Metallurgical Plant), which showed that this arrangement has a number of structural and technological drawbacks. Among other things, it was not possible to maintain the temperature of the strip coming from the roughing stand and the heat distribution was not uniform over the strip cross section. The heat distribution could be improved by redesigning the pulling rolls in such a way that the strip end, remaining outside the furnace, could not cool down before the pass. When the design of the heating furnace at the finishing stand was improved, the required temperature in the slab could be ensured. The rolling process on the finishing stand

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SHEVCHENKO, A.A., doktor tekhn.nauk; GULYAYEV, O.I., kand.tekhn.nauk;  
ANISIFOROV, V.P., kand.tekhn.nauk; ARUTYUNOV, I.G., kand.tekhn.nauk;  
YURGELENAS, V.A., inzh.; FEDIN, V.P., inzh.

Performance of a two-high reduction mill with individual drive.  
Stal' 21 no.3:251-256 Mr '61. (MIRA 14:6)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut i  
Vsesoyuznyy nauchno-issledovatel'skiy institut metalloobrabotki  
i mashinostroyeniya.

(Rolling mills)

FEDIN, V.P.

Mills with coilers in the furnace. Stal' 21 no.12:1096~  
1100 D '61. (MIRA 14:12)

1. Vses. yuznyy nauchno-issledovatel'skiy institut metallurgicheskogo  
mashinostroyeniya.  
(Rolling mills--Equipment and supplies)



POBEDIN, Ivan Sergeyevich; DROZD, Vladimir Grigor'yevich. Prinimali  
uchastiye: FEDIN, V.P., inzh.; KALININ, V.P., kand. tekhn. nauk;  
ASTAKHOV, I.G., red.; BRINZA, V.N., red.izd-va; ISLENT'YEVA, P.G.,  
tekhn. red.

[Production of merchant shapes] Proizvodstvo sortovoi stali. Mo-  
skva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metal-  
lurgii, 1962. 248 p. (MIRA 15:1)  
(Rolling (Metalwork))

S/659/62/008/000/021/028  
I048/I248

AUTHORS: Panin, V.Ye., Zenkova, E.K., Fedin, V.P., and  
Kudryavtseva, L.A.

TITLE: The problem of high-temperature diffusion transformations  
in solid solutions

SOURCE: Akademiya nauk SSSR. Institut metallurgii, Issledovaniya  
po zharoprochnym splavam. v.8. 1962. 161-168

TEXT: The alloys (Cu + 14.9% Al, Cu + 14.9% Al + 0.025% P, Cu + 14.9% Al, + 0.06% P, all percentages atomic) were homogenous solid solutions up to 1030°C. The electric resistivity of the alloys ( $\rho$ ), measured at room temperature, was a function of the quenching temperature ( $T_q$ ), reaching a maximum value of 10.48 and 11.02 microhm-cm. for pure and P-containing alloys respectively at  $T_q = 400-500^\circ\text{C}$ . The  $\rho$  of the alloys quenched in water was higher than that of the alloys cooled in air. The hardness ( $H_v$ ) -  $T_q$  relationship was similar to the  $\rho$  -  $T_q$  one, with  $H_{v(\text{max})} = 55 \text{ kg./sq.mm.}$  for the pure

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S/659/62/008/000/021/028  
I048/I248

The problem of high-temperature diffusion...

alloy quenched from 450° in water. This indicates that the increase in  $\rho$  is not caused by excessiv vacancies in the alloy, and that the P from the P-containing alloys combines with the vacancies reducing their mobility. Both  $\rho$  and  $H_v$  in the alloys quenched from 700°C are lower than in non-quenched specimens, indicating the existence of a highly ordered structure in the alloys quenched from high-temperatures. During annealing,  $\rho$  decreases with time at the annealing temperature, the decrease in the pure alloys being much larger than in the P-containing ones, i.e., the stability of the quenched state is much higher in P-containing alloys. The energy of activation of the diffusion processes increases with the P content of the alloy and reaches 35±3.7 kcal./mole in an alloy containing 0.06% P, which is almost twice the value for the pure Cu-Al alloy; due to the decreased mobility of vacancies in the P-containing alloys. Diagrams show the effect of temperature on the electric resistivity and internal friction in the alloys. In the friction

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S/659/62/008/000/021/028  
I048/I248

The problem of high-temperature diffusion...

diagram for pure alloy maxima at 260°C and 520°C are associated with the motion of the constituent atoms, and with stress relaxation on the grain boundaries respectively. The internal friction in pure alloy specimens quenched from 700-900°C and in the alloys containing P is much lower than in the annealed pure alloy; this proves that the specimens quenched from high temperatures possess an ordered structure, and that the P from the P-containing alloys reduces the mobility of defects within the alloy. There are 3 figures.

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FEDIN, V.P.; IVANOV, Yu.G.

Guide unit on continuous billet mills. Metallurg 8 no.5:23-27  
My '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruk-  
torskiy institut metallurgicheskogo mashinostroyeniya.  
(Rolling mills--Equipment and supplies)

35941

S/024/62/000/001/012/013  
E140/E435

9.6150

AUTHOR: Fedin, V.T. (Moscow)

TITLE: On the problem of determining the spectral density at the output of a synchronous detector for a modulation type radiometer

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika. no.1, 1962, 181-185

TEXT: The author claims that the previous literature on the correlation function at the output of a synchronous detector of a modulation type thermal noise receiver is in error. This error arises from the assumption that the correlation function component

$$-x(t)x(t+\tau) \frac{\cos v(2t+\tau)}{2} = 0 \quad (1.2)$$

and constitutes an error of the order of 100% in the work where this is used. The author finds that this expression should be taken equal to

Card 1/2

On the problem of determining ...

S/024/62/000/001/012/013  
E140/E435

$$\begin{aligned} \overline{x(t)x(t+\tau) \frac{\cos v(2t+\tau)}{2}} &= \overline{x_1(t)x_1(t+\tau) \sin vt \sin v(t+\tau) \frac{\cos v(2t+\tau)}{2}} = \\ &= \frac{1}{4} \overline{x_1(t)x_1(t+\tau)} \neq 0 \end{aligned} \quad (1.5)$$

On this basis, he obtains the expression

$$\begin{aligned} S(\omega) &= \pi k^2 \left\{ \frac{(\bar{u}_c^2)^2}{4} \delta(\omega) + 4 \left[ \frac{35}{128} (\bar{u}_c^2)^2 + \frac{3}{4} \bar{u}_c^2 \bar{u}_m^2 + (\bar{u}_m^2)^2 \right] \frac{1}{\Delta \omega} \right\} + \\ &+ \pi k^2 \left\{ \frac{(\bar{u}_c^2)^2}{4} \delta(\omega) + \left[ \frac{7}{16} (\bar{u}_c^2)^2 + \frac{1}{2} \bar{u}_c^2 \bar{u}_m^2 \right] \frac{1}{\Delta \omega} \right\} \end{aligned} \quad (2.15)$$

where the subscripts c and m indicate signal and noise, respectively and the remaining notation is evident;  
 $k^2 = k_2^2 k_3^2 k_4^2$ ;  $\delta(\omega)$  is delta function. The error of the previous formulae increases when the signal level exceeds the intrinsic noise of the radiometer proper noise, and influences the determination of the resolution (threshold sensitivity) of the instrument. There are 3 figures.

SUBMITTED: April 5, 1960  
Card 2/2

S/024/62/000/003/011/011  
E140/E463

AUTHOR: Fedin, V.T. (Moscow)

TITLE: Certain methods of controlling the output  
characteristics of low-frequency and ultra-low-  
frequency noise generators

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye  
tekhnicheskikh nauk. Energetika i avtomatika,  
no.3, 1962, 208-215

TEXT: The author considers the possibilities for modifying the  
output (frequency) characteristics of low-frequency noise  
generators utilizing normal noise generators and synchronous or  
square-low frequency changers. He shows that the latter are  
simpler but, that the former present richer possibilities of  
varying the characteristics. There are 8 figures. ✓

SUBMITTED: January 3, 1961

Card 1/1



FEDIN, V.T.

Radiation during the friction of metallic surfaces subject to the  
action of different electric potentials. Izv. vys. ucheb. zav.;  
radiofiz. 5 no.4:747-750 '62. (MIRA 16:7)  
(Microwaves)

NIKOLAYEV, Andrey Grigor'yevich; PERTOV, Sergey Viktorovich;  
PERESLEGIN, S.V., retsenzents; FEDIN, V.T., retsenzents;  
KRASOVSKIY, A.A., prof., doktor tekhn.nauk, nauchn. red.  
MASHAROVA, V.G., red.

[Radar detection of thermal radiation; passive radar] Radioteplolokatsiya; passivnaya radiolokatsiya. Moskva, Sovetskoe radio, 1964. 334 p. (MIRA 17:12)

FEDIN, V.T., inzh.

Determination of the static characteristics of some industrial  
loads. Izv.vys.ucheb.zav.; energ. 8 no.9:82-85 S '65.

(MIRA 18:10)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy  
elektricheskikh sistem i setey.

FEDIN, V.T., inzh.; GLAZUNOV, A.A., kand.tekhn.nauk; MEL'NIKOV, N.A.,  
doktor tekhn.nauk; SOLDATKINA, L.A., kand.tekhn.nauk; KARPOV,  
F.F., kand.tekhn.nauk; ARKH'POV, N.K., inzh. [deceased]

Efficinecy of load controlling device of 35 and 110 kv. transformers.  
Elek. sta. 36 no.2,85-88 F '65. (MIRA 18:4)

PTUKHA, T., kand.fiz.-matem.nauk; FEDIN, Ye. [Fedin, E.], kand.fiz.-matem.nauk

Researcher in a miracle world. Znan. ta pratsia no.3:18-19 Mr  
'63. (MIRA 16:10)

GARNOV, V.V.; FEDIN, Ye.D.

High speed stereo radiography. Zhur. nauch. i prikl. fot. i kin.  
10 no.2:124-131 Mr-Ap '65. (MIRA 18:5)

1. Institut fiziki Zemli imeni Shvaldta AN SSSR.

FEDIN, Ye.I., inzh.; VNUKOV, P.K., inzh.

Mechanization and automatic control in industry is the main  
road toward reducing labor consuming operations in reinforced  
concrete shipbuilding. Sudostroenie 28 no.1:59-61 Ja '62.  
(MIRA 16:7)

(Ships, Concrete)

(Shipbuilding—Equipment and supplies)

BATRAKOV, V.G., kand. tekhn. nauk; FEDIN, Ye.I., inzh.

Service life of shipbuilding concrete exposed to pickling  
solutions and brines. Sudostroenie 30 no.12:34-37 D '64.  
(MIRA 18:6)



FEDIN, Ya.Ya. (Moskva)

Immortal legacy of a French atheist: Jean Meslier and his "testament." Priroda 53 no.7:99-102 '64. (MIRA 17:7)

L 36268-65 EWT(1)/T/EED(b)-3 Pas-2 IJP(c)

ACCESSION NR: AP5008169

5/0226/65/000/005/0052/0052

AUTHORS: Fedin, Ye. D.; Garnov, V. V.; Lipanin, G. G.

TITLE: A device for high-speed pulsed stereoscopic x-ray photographing of rapidly  
occurring processes. Class C1, No. 16874

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 52

TOPIC TAGS: x ray photography, stereoscopic photography, spatial perception

ABSTRACT: This Author Certificate presents a device for the high-speed pulsed  
stereoscopic x-ray photographing of rapidly occurring processes. It contains pulsed  
x-ray tubes, pulse voltage generators, and a synchronizing device (see Fig. 1 on the

ASSOCIATION: none

SUBMITTED: 14Mar63

ENCL: 01

SUB CODE: ES, OP

NO REF SOV: OCO

OTHER: 000

Card 1/2

FEDINA, A. B., MEDVEDEV, ZH. A. (USSR)

"A study of Certain Peptide-nucleotide Compounds in Crops and their possible role in the Synthesis of Albumins."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

FEDINA, A.V.

Stratigraphy of the Nemurian sediments of the northern slope of  
the Ukrainian crystalline shield. Trudy UkrNIGRI no.5:68-72

1963.

(MIRA 18:3)

1. FEDINA, A. YE.
2. USSR (600)
4. Geology and Geography
7. Books on Crimea. Reviewed by A. Ye. Fedina, Sov. Kniga, No. 4, 1952.

9. ■■■ Report U-3081, 16 Jan 1953, Unclassified.

FEDINA, A. YE.

Dissertation: "Experience Gained in the Physicogeographical Regionalization of the Caucasus (In Connection With the Creation of Exhibits for the Geography Museum in Moscow State University)." Cand Geog Sci, Moscow State U, Moscow, 1953. (Referativnyy Zhurnal--Geologiya/Geografiya, Moscow, Aug 54)

SO: SUM 393, 28 Feb 1955

FEDINA, A.Ye.

Kolkhida. Geog. v shkole no.6:16-21 N-D '53. (MLHA 6:12)  
(Kolkhida--Description and travel)



*FEDINA, A. Ye.*

14-57-7-14392

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr. 7,  
p 19 (USSR)

AUTHORS: Gvozdetkiy, N.A., Fedina, A.Ye.

TITLE: Physical Geographical Districts in the Caucasus (Fiziko-  
geograficheskoye rayonirovaniye Kavkaza)

PERIODICAL: Vopr. geografii, 1956, sb 39, pp 130-150

ABSTRACT: This new division was accomplished by analyzing the interaction of all physical and geographical factors. The historical, or more accurately, the genetic approaches were used whenever possible. Close attention was paid to the relief. The authors have tried to find the processes or factors which caused the differentiation among the regions. Changes caused by human activities were studied as far as possible. The authors regard the zones differentiated by the elevation on mountain slopes merely as one provincial

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14-57-7-14392

Physical Geographical Districts (Cont.)

or local peculiarity. A map of the physical districts of the Caucasus is included. It shows the region to be divided into 46 districts.

I. The western and central Ciscaucasian district. IA. The western Ciscaucasian subdistrict: 1) the Kuban'-Azov plain; 2) the Kuban' sloping plain; 3) the Kuban'delta; 4) the Taman' Peninsula. IB. The central Ciscaucasian subdistrict: 5) the Stavropol' highland; 6) The northeastern Stavropol' region; 7) the Mineral'nyye Vody laccolith region; 8) the Terek-Sunzha highland; 9) the Kabardinskaya, Osetinskaya and Groznenskaya sloping plains. II. The Caspian lowland district. IIA. The Terek-Kuma lowland subdistrict: 10) the Kuma plain; 11) the Terek-Kuma sand mass, which includes the adjacent section of the Terek River valley; 12) the deltas of the Terek and Sulak Rivers. III. The Greater Caucasus district. IIIA. The subdistrict on the northern slope of the Great Caucasus: 13) the Black Sea Caucasus; 14) the Kuban'-Ardon cuesta region; 15) the Ardon-Sulak region; 16) the outer Dagestan region and the intermountain district of northern Azerbaijan; 17) the limestone karst region in southeastern Dagestan;

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Physical Geographical Districts (cont.)

18) the interior limestone part of Dagestan; 19) the Caspian foothill littoral region; 20) the Samur-Akzybir region; 21) the Caspian Caucasus. IIIB. The high mountain Great Caucasus subdistrict: 22) the high mountain region in western and central Caucasus; 23) the high mountain region in the eastern Caucasus. IIIC. The subdistrict on the eastern slope of the Great Caucasus: 24) the northern Black Sea region; 25) the northern Pontic foothills (Sochi) 26) the southern Pontic foothills (Kolkhida); the limestone karst region; 28) the intermountain region of Georgia and Azerbaijan. IV. The Kolkhida lowland district: 29) The eastern Kolkhida region; 30) the maritime Kolkhida region. V. The Kura valley district: VA. The Apsheron-Kura subdistrict: 31) the Apsheron Kobystan region; 32) the Kura-Araks lowland. VB. The Kura Alazani subdistrict: 33) the Kura region; 34) the Shirakskaya (Steppe)-Adzhinour region; 35) the Alazani-Agrichay region; 36) the Goris region. VI. The trans-Caucasian highland district. VIA. The Little Caucasus subdistrict: 37) the Adzharo-Trialetskiy region; 38) the Somkhetskiy-Murov Dag region; 39) the Karabakhskiy region. VIB. The Armenian highland subdistrict; 40) the Dzhavakhetkiy region;

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Physical Geographical Districts (Cont.)

41) the Aragats-Karabakhskiy region; 42) the Daralagezskiy region;  
43) the central Araks basin. VII. The Girkanskaya district. VIIA.  
The Talysh-Lenkoran' subdistrict: 44) the Lenkoran' lowland; 45) the  
Talysh region; 46) the region which forms the incised part of the  
Talysh and of Diabarskaya Kotlovina [Basin] (Zuvand). A bibliogra-  
phy of 55 titles is included.

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